EXHIBIT A

1. (Amended) An [(]optical[)] filter comprising;

a dielectric stack of alternating [(]relatively[)] high and low refractive index layers;

[a dielectric spacer layer, in juxtaposition with]

an opaque, reflective metallic layer [or substrate]; and

a dielectric spacer layer located between the dielectric stack and the metallic layer, the filter having a resonant wavelength, at which wavelength incident radiation is channelled into, and absorbed by, the metallic layer [or substrate].

2. (amended) An [(]optical[)] filter, as claimed in Claim 1, [in which unique case] wherein the dielectric spacer layer has the same composition and thickness as one of the constituent layers in the dielectric stack[, and wherein it therefore appears that the stack is in direct Juxtaposition with the metallic layer or substrate].

3. (amended) An [(]optical[)] filter, as claimed in Claim 1 [or 2], wherein one of the dielectric stack and[/or] spacer layer, varies in thickness spatially, over the metallic layer [or substrate].

4. (amended) An [(]optical[)] filter, as claimed in [any of the preceding claims] claim 1, wherein one of the dielectric stack, and[/or] spacer layer, thickness varies circularly over the metallic layer [or substrate].

5. (amended) An [(]optical[)] filter, as claimed in [any of the preceding claims] claim 1, wherein one of the dielectric stack, and[/or] spacer layer thickness varies linearly over the metallic layer [or substrate].

6. (amended) An optical filter as recited in claim 1 wherein [A monolithic, selectively variable, or tunable-wavelength, narrow-band, absorption (optical) filter, comprising a dielectric stack, and/or spacer, of spatially varying-thickness, deposited upon an absorbent and reflective

metallic layer, or substrate,] the wavelength absorbed [varying] varies with [(]linear and/or rotational[)] position of [(]the stack and/or spacer[) filter], in relation to incident light.

7. (amended) An optical filter as recited in claim 1 wherein [A single, or multiple wavelength (tunable), (optical) filter, including a metallic layer, separated, by a dielectric spacer layer, of a low refractive index material, from a dielectric mirror stack, comprising alternating layers, respectively of the same (or similar) low refractive index material, and a relatively high refractive index material; a primary resonant wavelength occurring when] wherein the spacer layer is formed from a low refractive index material and is equal to even integer multiples of a quarter-wave [(]optical thickness[)], including a zero (absentee layer),and symbolically described as;

Substrate / M nL $(HL)^x$ H /ambient

where:

M is the metal mirror thin film;

n = 0,2,4,6, etc...; even integer multiples of the quarter wave optical thickness of the spacer layer; and

H and L represent quarter wave optical thicknesses respectively of the high and low refractive index layers.

8. (amended) An optical filter as recited in claim 1 wherein [A single, or multiple wavelength (tunable) (optical) filter, including a metallic layer, separated by a dielectric spacer layer, of a high refractive index material, from a dielectric mirror stack, comprising alternating layers, respectively of the same (or similar) high refractive index material; and a relatively low refractive index material; a primary resonant wavelength occurring when] wherein the spacer layer is formed from a low refractive index material and is equal to odd integer multiples of quarter-wave (optical thickness), symbolically described as;

Substrate / M nH $(LH)^x$ / ambient

where:

M is the metal mirror thin film;

n = 0,1,3,5,7,..., odd integer multiples of the quarter wave optical thickness of the spacer layer; and H and L represent quarter wave optical thicknesses respectively of the high and low refractive index layers.

Claim 9 deleted

10. (amended) An optical filter as recited in claim 1 futher [A single, or multiple wavelength (tunable) (optical) filter, with a dielectric reflector] comprising a tiered multi-layer stacking sequence of:
Substrate / M H $(LH)^4$/ ambient where H and L equal one quarter-wave optical thicknesses, of relatively high and low refractive index materials, respectively, zinc sulphide and thorium flouride.

11. (amended) An optical filter as recited in claim 1 further [A single, or multiple (tunable) wavelength (optical) filter, with a dielectric reflector] comprising
a tiered multi-layer stacking sequence of:
Substrate / M HHH $(LH)^4$/ ambient
where H and L equal one quarter-wave optical thicknesses, of relatively high and low refractive index materials, respectively, zinc sulphide and thorium flouride.

12. (amended) An optical filter as recited in claim 1 further [A single, or multiple (tunable) wavelength (optical) filter, with a dielectric reflector] comprising
a tiered multi-layer stacking sequence of:
Substrate / M $(HL)^2xH(LH)^2$/ ambient where H and L equal one quarter-wave optical thickness, of relatively high and low refractive index materials, respectively, zinc sulphide and thorium flouride; 'x' is between about 4 through 1000 [for example x= 100].

13. (amended) An [(]optical[)] filter, as claimed in [any of the preceding claims], claim 1 incorporating additional dielectric spacers, configured to steepen the absorption characteristic edge and so square off filter performance.

14. (amended) An induced absorption [(]optical[)] filter as recited in claim 1 configured to operate in the wavelength band 8 to 12μm.

Claims 15 and 16 deleted

17. (amended) A laser incorporating [an Induced Absorption Filter (IAF)] the optical filter of claim 1 at one end of a resonator.

18. (amended) A laser incorporating [an Induced Absorption Filter (IAF),] a pair of optical filters as recited in claim 1 located at each end of a resonator.

Claims 19 to 24 deleted.